

On the other hand, acceptance of (and education for) the assumption of individual responsibility is not an excuse for a government seeking to exculpate itself from proper public sector responsibilities. More, it is an acknowledgment that each individual can play an incremental part in environmental improvement if we each adopt the thematic approach of "thinking globally and acting locally".

The boundaries drawn by the nation's colonial rulers which delineate our political administrative units do not, for the main part, follow logical ecosystem boundaries. Stress and damage to such ecosystems, as a logical consequence, also do not follow such artificial boundaries.

Spheres of influence between the different levels of government and the nature of their administrative

arrangements are not recognized by the natural forces which shape, mold or degrade our natural environment. Human modification, whether intentional or otherwise, of this environment also is not bound by such constraints.

The New South Wales Government recognizes that we live in a society which has had significant impact locally, nationally and globally on our range of ecosystems. Much more needs to be done in the future on a co-operative Federal basis to address these problems and blind chauvinist parochialism cannot be allowed to act as an inhibitor on responsible and appropriate national or global measures to address these degradations or human impacts.

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## Improving the scientific component of conservation planning

George Wilson

Bureau of Rural Resources, Department of Primary Industries and Energy, Canberra

In his paper in the March 1990 edition of *Australian Zoologist*, Harry Recher reviews the status of wildlife conservation in Australia and considers the options available for restoration of degraded landscapes and prevention of further species extinctions. He argues for a review of Australia's national goals and the redefinition of the measurement of progress and the quality of life.

The sustainable development debate currently underway in Canberra is part of the process outlined in Dr Recher's article. The urgent need is for a full contribution by scientists. Descriptions of the environmental problem are getting through to the wider community, probably to saturation point. Doomsday statements now have to lead to informed debate, and as Dr Recher says the setting of goals, where we want to go and how to get there.

The development of the National Conservation Strategy for Australia in 1983 was an earlier stage in this process. More recently the Minister for Primary Industries and Energy, the Hon. John Kerin, MP, announced the initiative to define and develop a programme for sustainable development (see press releases, for example, 2 May, 1990). In another release on 8 February, 1990, he outlined his top seven issues for agriculture in the 1990's. They were identifying the barriers to farmers adopting environmentally sound technologies and practices that are also economically viable; determining targets, if any, for repairing land degradation; introducing

market mechanisms, regulations, and education services to encourage sustainability; deciding if stocking rates are excessive in some areas, and if some lands are "marginal"; drought and the recommendations of the Drought Review Policy Task Force; determining the role of land and water regulations and administrative arrangements in problem solution; and deciding if reforms to chemical use including recent Commonwealth legislation, have brought us up to where we should be.

Concurrently, the Commission for the Future has released a discussion paper which emphasized the need for integrating ecology and the economy.

Dr Recher alludes to people who have fixed views about parks and wildlife conservation. He suggests, rather timidly, that the concept of multiple use parks "merits consideration". The objections by some conservationists to utilization of native species needs similar treatment. If we are going to have a meaningful debate and come to mutually agreed goals on wildlife conservation and sustainable development then many sacred cows on both sides have to go. On the development side there is unthinking philosophical resistance to scrutinizing continuous economic growth, yet most know that exponential increases in resource consumption are no more feasible than unrestrained increases in human population. Dr Recher identifies these problems and the needs for a change in the national and state policies based on a growth economy and the assumption of an expanding population.

Having determined goals, the problem is then how to implement them without creating a centrally planned economy and state. Recent upheavals in eastern Europe show the failings of that approach, not only in its ability to deliver basic goods and services to the community but also from an environmental point of view. Many of the worst environmental problems and unwanted adverse effects of growth and development are to be seen in centrally planned economies.

Dr Recher laments the general standard of environmental education and teaching in professional resource management institutions. He indicts them for their lack of capacity to instil a sense of humanity in students and the adoption of Leopold's land ethic. Such schools also lack an ability to relate to government departments. So often their teachings are conducted in an abstract or theoretical world and are not linked to political realities. The reality is that the community demands increasing lifestyles and greater use of resources and at the same time want environmental programmes and policies. Addressing this inherent conflict is difficult.

A strong case can be made for bringing these environmental education institutions closer to government and

to organizations such as the Bureau of Rural Resources in the Department of Primary Industries and Energy. The BRR has the role of filling the gap between the work of scientists and policy development. We are a group of animal, plant, land, forestry and fisheries scientists under one roof but in close contact with economic and policy divisions of the department.

In the Bureau the opportunity is present for university staff and others to be seconded either on sabbatical or to work as Bureau staff officers for short periods. By doing so they will be able to learn more of the government policy development process and to contribute to the task of:

- providing advice and scientific and technical information on rural resources, and
- reviewing, analysing and synthesizing it into advice for the management of government programmes.

Dr Recher has made a valuable contribution in this paper and the ensuing discussion on sustainable development. The task is to go on and analyze the problem and to find solutions that are both scientifically sound and economically and politically possible.

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## Comment on Wildlife conservation in Australia State of the Nation

Andrew A. Burbidge

Department of Conservation and Land Management, Western Australia

Harry Recher's keynote address to the ACIUCN Threatened Species Conference, 1-4 December, 1989 at Taronga Zoo, Sydney provides a pessimistic view of the status of wildlife conservation in Australia. While I would not argue with his basic thesis that Australian wildlife (both animals and plants) is declining in abundance and diversity I believe that providing a frightening scenario of the future will, on its own, not encourage people to believe that current problems are solvable. If we are to persuade politicians and the general public to the view that something can and should be done it is important to balance the pessimism with information on recent success stories and provide practical solutions. Prophecies of doom can readily become self-fulfilling.

As well, scientists need to be as factual as possible about the number of endangered species and the risks of extinction. Claims that large numbers of species will

become extinct in the near future will ultimately cause a backlash when the predictions don't come true.

Wildlife conservation, including the conservation of endangered species, has traditionally been a responsibility and function of the states, with the Commonwealth Government only recently taking an interest in the subject. Have the states made significant progress in recent years?

When I joined the Western Australian Public Service as a junior wildlife scientist 21 years ago there were less than one million hectares of national parks and nature reserves in the state, there were no marine parks, there were no accurate statistics on the degree to which species and ecosystems were threatened and not one endangered species was being adequately managed to ensure its survival. Now there are over 15 million hectares of national parks and nature reserves, two